

Claims

1. Rope-like structure, especially a core rope, a cord and a rope, characterized in that the longitudinal fibers of a longitudinal fiber structure (40) consisting of individual fibers, yarns, yarn strands, and/or cords are present processed among one another into the core (3), intermediate jacket (8) and jacket (4), that at least there is at least one other fiber (50) which lies transversely to the longitudinal fibers essentially with a different angle or another fiber bundle which is attached around the longitudinal fibers such that the latter are mutually slip-proof and essentially immovable and wherein the other fiber (50) is present bound at least one to the longitudinal fibers of the longitudinal fiber structure (40), the longitudinal fibers being held fast in this way.

2. Rope-like structure as claimed in claim 1, wherein at least one longitudinal fiber (41) of the longitudinal fiber structure (40) is looped at least partially with at least one other fiber (50) and wherein the others longitudinal fibers are held fast in this way.

3. Cord as claimed in claim 1 or 2, wherein the longitudinal fibers of the longitudinal fiber structure (40) present connected such that the other fiber (50) or fiber bundle runs in the transverse direction, diagonal direction, or at some other optional angle to the longitudinal fibers, wherein the fiber (50) surrounds at least one longitudinal thread or one longitudinal fiber (41) or encloses it individually, entirely or partially, its being held at a position within the longitudinal fiber structure (40) and wherein the fiber (50) is routed back that it entirely surrounds the individual longitudinal fibers and holds them essentially immovably and stationary in position against one another.

4. Cord as claimed in claim 3, wherein it does not unravel.
5. Cord as claimed in claim 3, wherein it has higher strength with respect to a braided cord.
6. Cord as claimed in one of claims 1 - 5, wherein it has at least two locations (42) at which at least one other fiber (50) which loops around the longitudinal fibers of the longitudinal fiber structure (40) or fiber bundle is present wrapped and routed back.
7. Cord as claimed in one of claims 1 - 5, wherein when cut off it is present resistant to unravelling by the longitudinal fibers of the longitudinal fiber structure (40) being held by at least one other fiber (50) or by the fiber bundle, its lying around the longitudinal fibers from the outside to the inside and from the inside to the outside.
8. Cord as claimed in one of claims 1 - 7, wherein under the longitudinal fibers of the longitudinal fiber structure (40) at at least one location within the longitudinal fiber structure (40), it has one longitudinal thread or one longitudinal fiber (41, 41') with much higher strength, by which the cord (20) can be more reliably sewn and/or has less stretching.
9. Cord as claimed in one of claims 1 - 7, wherein under the longitudinal fibers of the longitudinal fiber structure (40) at at least one location within the longitudinal fiber structure (40), it has one longitudinal thread or one longitudinal fiber (41, 41') with much higher elasticity and/or stretching, by which the cord (20) has higher stretching and/or elasticity.
10. Cord or rope as claimed in claim 1 or 2, wherein under the longitudinal fibers of the longitudinal fiber structure (40) there is at least one other longitudinal fiber (44) which is present at least partially melted with heat with the longitudinal fibers and with another fibers (50, 51) or fiber bundle made at least partially as a melt fiber at at least one location (45) so that

the longitudinal fibers of the longitudinal fiber structure (40) are present slip-proof, by which much higher abrasion resistance and/or impregnation and/or coating results.

11. Cord or rope as claimed in claim 10, wherein the core (3) and the jacket (4) have the same or different longitudinal fibers of the longitudinal fiber structure (40), wherein the outside longitudinal fibers (46) are made at least partially as melt fibers, wherein at least one other traverse fiber (50) or fiber bundle surrounds and binds the outside longitudinal fibers (46), and wherein at least another second traverse fiber (50') or a second fiber bundle, present as a melt fiber, surrounds and binds the outside longitudinal fibers (46), a fused jacket being formed with heat by melting the longitudinal fibers (46) with another second traverse fiber (50').

12. Rope as claimed in claim 1 or 2, wherein at least one other fiber (50) of fiber bundle has higher strength compared to the longitudinal fibers of the longitudinal fiber structure (40) and encloses and binds the longitudinal fibers differently, yielding higher stiffness.

13. Rope as claimed in claim 12, wherein the longitudinal fibers of the longitudinal fiber structure (40) are present mixed as core and jacket fibers, the jacket fibers forming a part of the core and the core fibers forming a part of the jacket, and wherein they are present simultaneously bound by at least one other fiber (50) or fiber bundle with higher strength relative to the longitudinal fibers, the other fiber (50) or fiber bundle having different thickness, strength or extensibility.

14. Rope as claimed in claim 12, wherein at least one other fiber (50) or fiber bundle has higher elasticity relative to the longitudinal fibers of the longitudinal fiber structure (40) and binds the longitudinal fibers and wherein the core (3) consists of high-strength Aramid fibers and the jacket consists of heat-resistant Nomex fibers or of abrasion-resistant, cut-proof and/or

flame-proof, heat-resistant, acid-resistant or UV-resistant fibers and/or yarns.

15. Rope as claimed in claim 12, wherein at least one other fiber (50) or fiber bundle has higher elasticity relative to the longitudinal fibers of the longitudinal fiber structure (40) and binds the longitudinal fibers and wherein the core (3) consists of extremely high-strength parallel fibers which are partially prestretched or oriented, and the jacket (4) consists of UV-resistant, abrasion-resistant, cut-proof yarns and/or fibers, by which less stretching with higher flexibility results.

16. Rope as claimed in claim 12, wherein the longitudinal fibers of the longitudinal fiber structure (40) in the core (3) consist of high-performance fibers and/or cords as claimed in the invention with many fibrils and in the jacket (4) of abrasion-resistant, cut-proof fibers insensitive to moisture, wherein the fibers in the core (3) and jacket (4) are connected to one another by at least one other essentially traverse fiber (50) or fiber bundle such that even for the most varied fiber properties jacket slip does not occur and wherein at the same or reduced diameter higher damping of dynamic shocks is ensured in this way.

17. Rope as claimed in claim 12, wherein the core (3) consists of various high-performance fibers with extremely low stretching and high tear strengths and the jacket (4) consists of different, especially abrasion-resistant, edge-strong, cut-proof, heat-resistant, flame-resistant, UV-resistant fibers and wherein the longitudinal fibers are arranged as parallel as possible, the smallest possible stretching occurring in the longitudinal direction.

18. Rope as claimed in claim 12, wherein the longitudinal fibers of the longitudinal fiber structure (40) in the core (3) consist of extremely high-strength, high-performance fibers with much reduced stretching and higher tear resistance and in the jacket of abrasion-resistant, cut-

proof fibers insensitive to moisture, where the fibers in the core (3) and jacket (4) are connected to one another by at least one other essentially traverse fiber (50) or fiber bundle such that even for the most varied fiber properties jacket slip does not occur and wherein for this reason at the same or reduced diameter stretching as small as possible is ensured.

19. Rope as claimed in claim 18, wherein at least the core fibers are present partially prestretched or oriented.

20. Rope as claimed in claim 12, wherein the longitudinal fiber structure (4) in the core (3), intermediate jacket (8) and jacket (4) consists of different fibers, wherein in the intermediate jacket a damping cushion or an air cushion is formed and wherein the rope has a cavity (55) in the middle of the core (3).

21. Rope as claimed in one of claims 12-20, wherein it has essentially a round cross section which changes in diameter in places and wherein the cross section passes in places into an oval and/or flat cross section.

22. Rope as claimed in one of claims 12-21, wherein lettering and/or marking and/or a middle marking is present worked continuously into the outer surface of the structure by means of at least one another fiber (50) or fiber bundle in the longitudinal direction and/or in the transverse direction and/or at any angle to the longitudinal direction.

23. Rope-like structure as claimed in claim 1, wherein the other fiber (50) or fiber bundle forms an angle of less than 45° to the longitudinal fibers (40).

24. Rope-like structure as claimed in claim 1, wherein the other fiber (50) or fiber bundle forms an angle of 45° to 90° or 90° to the longitudinal fibers (40).

25. Rope-like structure, cord or rope as claimed in one of claims 1-24, wherein it passes

in a grid from an undivided, braided rope-like structure with a diameter (D) into a divided, braided rope-like structure and has openings (64, 64', 64'') with slot lengths (L).

26. Rope as claimed in claim 25, wherein the end (65) of the rope is present looped back repeatedly through the openings (64, 64', 64'') and forms a loop, the slot length (L) being 3-5 times the diameter (D) of the rope.

27. Cord as claimed in one of claims 1-25, wherein in a grid it has first sections (70) as an undivided, braided rope-like structure and second sections (71) as a divided, braided rope-like structure.

28. Cord as claimed in claim 27, wherein a second cord (73) is present looped through an opening (64) of the first cord (72) and located essentially perpendicular to it, the first and second cords forming part of stringing.

29. Cord as claimed in one of claims 1-24, wherein in a grid it first sections (70) as a undivided, braided rope-like structure and second sections (71) as a braided, rope-like structure each with thickened areas (76), with diameters which are up to twice the diameter in the first sections (70) [sic].

30. Cord as claimed in claim 29, wherein there is a second cord (75) arranged essentially perpendicular to a first cord (74), the middle areas of the sections (71) lying on one another and the first and second cords forming part of stringing.

31. Cord as claimed in one of claims 1-30, wherein at least one other fiber (50) is made as a fiber bundle.

32. Cord as claimed in one of claims 1-31, wherein the fiber bundle consists of monofil, multifil staple fibers or mixed fibers of different fibers, or of any combination of fibers, the fiber

bundle being present twined, twisted or as parallel fiber bundles.